NOTES AND DESCRIPTIONS OF NEW SPECIES OF WEST AMERICAN HISPINÆ (COLEOPTERA-CHRYSOMELIDÆ)

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The Hispinæ, because of their colors and neat appearance, have always been considered as one of the most attractive groups of the leaf-eating beetles. They are interesting biologically, for their larvæ are either true leaf-miners or work between the approximated surfaces of the young unfolded leaves. Many of the old world species are quite destructive as, for instance, some which feed on the leaves of the bamboo and rice, and a number of ours are also of economic importance, as will be shown by the remarks of Mr. W. W. Jones and Mr. H. R. Brisley following mine. As the result of a recent study of our species, I am making known a number of undescribed forms, and reporting a few facts concerning others.

Anisostena californica Van Dyke, new species

Elongate, subcylindrical, black, upper surface, especially the elytra, a deep metallic blue; antennæ black. Front of head with a fine median and a coarser longitudinal groove at the inner margin of each eye and rather coarsely punctured, the punctuation extending well up onto the vertex; antennæ slightly longer than head and prothorax together, third joint just perceptibly longer than the second but narrower, fourth, fifth, and sixth gradually increasing in breadth, the next five forming an elongate cylindrical club. Prothorax distinctly longer than broad, with sides practically parallel, subcylindrical, deeply, coarsely, closely, and irregularly punctured, quite reticulate laterally. Elytra one-third broader at base than prothorax, three and a quarter times as long as prothorax, with sides almost parallel, the margin sinuate when viewed laterally, regularly rounded at apex and minutely serrulate apically; disc with a scutellar and eight rows of deep and regular punctures, the sutural and alternate intervals elevated and costate. Mesofemora with a row of basal serrations within. Length, 4.5 mm.; breadth, 1.75 mm.

Type (No. 1639, Mus. Calif. Acad. Sci.), and five paratypes in my collection captured by myself on a species of reedy grass in the wet meadows on the floor of the **Yosemite Valley**, California, May 22, 1921. I also have seven more specimens in my collection from the following localities: Castella, Castle Crags

¹ Biologia Centr. Amer. Insecta, Coleoptera, Vol. VI, Pt. 2, p. 1.

and Shasta Springs in Siskiyou County, California, and Carrville, Trinity County, California, all collected during the months of June and July.

This species closely resembles the bluer phases of Anisostena perspicua Horn, agreeing with that in having the middle femora serrate within, but it differs by being somewhat smaller, always decidedly blue, with the front of the head deeply punctured, not merely granular as in perspicua; joints four to six of antennæ decidedly transverse, not longer than broad as in the other, with the base of prothorax not transversely depressed, and the elytra not emarginate at the apices. From Anisostena funesta Baly. it differs by possessing the middle femoral teeth, by not being black, by having the front profoundly punctured, the intermediate joints of the antennæ all decidedly transverse, the punctuation of pronotum more definitely cribrate and the alternate elytral intervals more costate.

Brachycoryna (Odontata) hardyi (Crotch) ²

This name should replace Brachycoryna horni Weise (melsheimeri Horn) in our lists. In separating the California species from the Pennsylvania melsheimeri (Cr.), Weise seems to have overlooked the fact that Crotch had already done that. Brachycoryna hardyi (Cr.) is a common and widely distributed species in California, living upon various species of Ceanothus, or wild lilac, often in company with Baliosis californicus (Horn). It varies somewhat in the different parts of its range, the specimens from the Sierra Nevada being as a rule the largest and most elongate, with the elytral punctures very large, less regularly disposed and with a tendency to become confluent. The Southern California forms are shorter and with the rows of elytral punctures more regular, while those from the San Francisco Bay region are perhaps more rufous, with the elytral punctuation the most regular and the intervals the most definite. Specimens of the last were seen to be so different from the Sierran forms, that I was inclined to consider them distinct until I compared them with others of a more intermediate type.

Brachycoryna dolorosa Van Dyke, new species

Robust, coal-black, subopaque, legs somewhat nigro-rufous. Head in front, with the usual median and lateral oculo-marginal grooves,

² Trans. Am. Ent. Soc., Vol. V (July, 1874), p. 80.

punctate granular, antennæ slightly longer than prothorax, club elliptical and compact as usual. Prothorax broader than long, sides straight and parallel for posterior two-thirds, convergent anteriorly; disc coarsely, irregularly and cribrately punctured; intervals minutely granulate. Elytra less than twice as broad as prothorax, over three times as long, and itself somewhat less than two-thirds as broad as long, broadest posterior to middle; sides hardly sinuate back of the humeri, slightly arcuate and evenly rounded to apices; margin very finely serrulate; disc convex, a series of three punctures at the side of the scutellum, then four double rows of coarse punctures, the third with a short series of punctures interposed (a double row interposed in a few specimens); sutural and alternate intervals distinctly elevated and costate, the entire surface minutely granulate like the pronotum. Length, 4 mm.; breadth, 1.75 mm.

Type (No. 1640, Mus. Calif. Acad. Sci.), and three designated paratypes from a series of nine specimens belonging to the California Academy of Sciences, collected by Mr. E. P. Van Duzee, at Millbræ, San Mateo County, California, August 17, 1919, on wormwood. I have in my own collection a specimen similar to the above, and secured at Burlingame, San Mateo County, California, July 10, 1909, and another collected at Berkeley, California, May 20, 1919, this last specimen being more or less irregularly blotched with yellow, thus as regards its color pattern approaching *Brachycoryna hardyi* (Cr.). It, however, has all of the physical characters of the typical all-black forms.

This species differs from Brachycoryna hardyi (Cr.) by being generally more robust, both prothorax and elytra proportionally broader, by the color in typical specimens, the dull appearance in contrast to the shining of the other, by the more transverse intermediate antennal joints, the definite and regular elevation of the alternate elytral intervals, the discal ones in the other but little if at all elevated, the more regular arrangement of the punctures as well as better separation (this last character not so evident when comparisons are made with the coastal phases of hardyi (Cr.)), and the less evident marginal serration. From Brachycoryna montana (Horn), to which it is evidently more closely related, it differs by being very much larger and more convex, by having the elytral punctures smaller and less crowded and the second and fourth intervals more elevated and straighter. In montana, the intervals are quite sinuate.

MICRORHOPALA RUBROLINEATA Mann.

This species has been known for years to have a tendency to vary as to its color pattern, but no one has noted particularly that these phases were more or less definite geographical races. This can be best shown by presenting them in tabular form.

Thorax with narrow yellow band near outer margin.

The yellow band absent from elytra. Found only in the hotter and drier parts of Southern California, as at San Diego, Palm Springs, and El Cajon, and extending northward along the drier parts of the Coast range to Tasajara Hot Springs in Monterey County, and along the western flanks of the Sierra Nevada to Tuolumne County......

_____rubrolineata var. signaticollis Lec.

Thorax without yellow markings.

Yellow markings of elytra very broad, extending from second interval to near lateral margin and, as in the preceding phase, confined to the anterior half of the elytra. Found in Arizona (Yavaipai County)......rubrolineata var. vulnerata Horn

The type (No. 1641, Mus. Calif. Acad. Sci.) of the variety *militaris* is a specimen collected by myself in **Siskiyou County**, **California** (presumably Upper Soda Springs), some years ago. Two paratypes in the collection of the California Academy of Sciences were secured by Mr. E. R. Leach, in Trinity County, California, March 22, 1917.

The *Microrhopala cyanea* Say of Colorado, probably the typical form, is a moderately large insect, at least 6 mm. in length and of a deep amethyst or bluish-purple color. There is a variety in Arizona, of which I have a specimen, that is only 5 mm. in length and of a brilliant greenish-blue color, contrasting quite markedly with the more typical form.